

*113 - 1000, sent paper to
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October 10, 1977

Mrs. Albert D. Lasker
870 United Nations Plaza
New York, New York 10017

Dear Mrs. Lasker:

In response to your letter of September 28, 1977, I have to point out that studies on the effects of interferon on the Epstein-Barr virus are, unfortunately, complicated by the fact that most of the cultured Burkitt tumor cells produce per se an interferon. This was the first observation my wife and I made when Dr. Epstein sent us his cultures in 1965. We regarded this as evidence that the cultures indeed carried a virus.

We subsequently noted that interferon production was not limited to Burkitt tumor cell cultures but occurred also in lymphoblastoid cell lines derived from peripheral leukocytes of a variety of donors. Yet some lines of any origin were non-producers. Yet, all cultures could be induced to produce interferon in either enhanced quantities or de novo when stimulated with inactivated Newcastle disease virus. The interferon production had no evident effect on the percentage of EBV producing cells nor on the growth rates of the cultures. These observations seem to preclude a therapeutic effect of interferon on Burkitt's lymphoma cells or the virus they carry, at least at the concentrations of interferon generated in the cultures. The results might possibly be different with highly potent interferon preparations but these are in short supply and should be reserved for studies rating top priorities.

The lymphoblast cultures could serve, however, as excellent sources of interferon were it not for the fact that they all must be considered malignant and thus interferon from these sources would hardly ever be accepted for use in patients even after high degrees of purification.

My wife and I are almost certain that interferon can prevent infection and transformation of lymphoid cells by EBV, in the same manner as infection of other cells by other viruses or, to add a more pertinent example, the induction of lymphomas in monkeys by herpesvirus saimiri. Such a protection is transitory, however, and would not offer

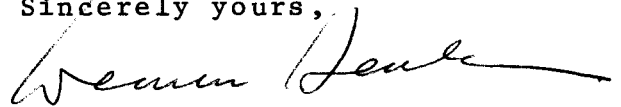
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a permanent solution. The treatment of specific tumors is, of course, another matter and offers very much hope that the initial encouraging results will be borne out by further studies.

With best wishes, also from my wife, I am

Sincerely yours,

A handwritten signature in cursive script, appearing to read 'Werner Henle', with a long horizontal flourish extending to the right.

Werner Henle, M. D.

WH/vc